

OHRC Advisory Committee

“Research Report”

20 September 2010

David L. G. Noakes

Professor & Senior Scientist
OSU - OHRC

OSU – Fisheries & Wildlife

- 75th Anniversary (REGISTER NOW)
- 8 – 10 October 2010
- OHRC Tour & Lunch – 9 October 2010

OSU - IACUC

- Committee (ongoing)
- Site Inspections
- Research reviews

OSU - FWCRU

- Search Committee
- Assistant Leader, Fisheries Co-op Research Unit
- Dr. Jim Peterson, Assistant Leader, Georgia Fisheries Co-op

Teaching

- **FW 323. MANAGEMENT PRINCIPLES OF PACIFIC SALMON IN THE NORTHWEST**
 - Fall 2010, Fisheries & Wildlife, Oregon State University – Stephanie Archer et al. (HMSC, OHRC)

Graduate Theses Examiner

- External Ph. D. Examiner

- Scott Pavey, Simon Fraser University
- “Functional Ecology and Evolution of Sockeye Salmon (*Oncorhynchus nerka*) Life History in the Dynamic Environments of Aniachak and Katmai”

- M. Sc. Committee Member

- Jeremy Romer, Oregon State University
- “Survival and Behavior of Juvenile Steelhead Trout (*Oncorhynchus mykiss*) in Two Small Estuaries in Oregon”

Education & Outreach

OCAMP

Ocean Literacy – Oregon Coast Aquarium – 16 August 2010

OCAMP – Year 2 “Kick Off” – Newport – 27 August 2010

Student Writers – OHRC Research Updates & Interviews

Research Discussions

- Eric Charnov, Hiram Li, Tom Ebert, David Noakes – “Growth”
- Eric Charnov, Jessica Miller, Kathleen O’Malley, David Noakes – “Life History”
- Judy Gordon, Wayne Geisy, David Noakes – “Hatchery reform”
- David Noakes, Shaun Clements, Ryan Couture, Kathleen O’Malley, John Wooley, Wayne Geisy – “Coho mate choice”
- David Noakes, Shaun Clements, Karen Hans, Kathleen O’Malley – “Coho life history”

Lower Columbia River

Chum salmon restoration

– ODFW, WDFW

ODFW - OHRC

- Research Reviews
 - OSU- F & W
 - ODFW
 - OHRC
-
- Bruce McIntosh, Charlie Corrarino, Shaun Clements, Ryan Couture, David Noakes

ODFW Hatchery Managers

- 23 – 25 August 2010
- Big K Ranch
- Hatchery Research – updates and options

ODFW NW Fisheries Biologists

Silverton, Oregon

- OHRC Research Update

Research Conferences

Presentations

Evolution of divergence and speciation: models of specific systems

Holar University College, Iceland

1 – 4 August 2010

“Behavioral Epigenetics”

<http://www.iiasa.ac.at/Research/EEP/FroSpects/Workshops.html>

AFS Annual Meeting 2010 Pittsburgh, PA

- 1) Noakes et al. Can steelhead ocean mortality be explained by survival in lower rivers and estuaries?
- 1) Bass, Giannico & Noakes. Oregon coast tide gates impact juvenile coho salmon movement

International Conference on Juvenile Salmon Migration

- Black Butte, Oregon (June 2010)
- Invited Keynote Speaker

OHRC “Visitors”

Dr. Ron Griffiths

Ecological Associates - benthic ecology – June 2010

Nanjing Agricultural University Students- August 2010

Dr. Bill Beamish, Biology Department, Burapha University, Thailand

- stable isotopes and food webs in freshwater fishes – August 2010

Patchara Nithirodpagdee, Burapha University, Thailand - ecology, stable isotopes – October – December 2010

Dr. John Gunn, Laurentian University – landscape ecology – October 2010

Dr. Sigurdur Snorrason, University of Iceland – genetics and development of salmonid fishes - October – December 2010

Dr. Hrefna Sigurjonsdottir, University of Iceland – reproductive behavior of salmonid fishes – October – December 2010

Dr. Kathleen Cole, Zoology Department, University of Hawaii – histology; steelhead temperature research – December 2010

Publications

Hatchery Research: Hatchery Reform

- Judy Gordon & David Noakes, Cco-editors
- Springer Academic – 3 volume book series

Noakes, D. L. G., P. Rand, B. Berijikian & T. Pearson (co-editors).

Ecological interactions of wild and hatchery salmon. Special Volume, Environmental Biology of Fishes.

<http://springerlink.com/content/102877/>

“Salmon Migration”

D. Noakes & P. Klimley (co-editors)

Special Issue of Environmental
Biology of Fishes

http://science.calwater.ca.gov/stage/sci_news_0610_tags.html

Research Projects and Proposals

Steelhead Temperature

Effects of rearing temperature on
sexual differentiation

Cole, Blouin, Noakes, Schreck &
Morrison

- Samples collected; histology underway; clearing & staining; X-rays underway

Salmonid Smolt Predation

- ODFW, OSU – F & W, USGS, OHRC
- Michelle Schuiteman, Carl Schreck, David Noakes, Shaun Clements, Ryan Couture

Alsea River Steelhead Genetics

Michael Banks, David Noakes
Results from Summer 2010

Renée Bellinger (HMSC)

- Chinook genetics (tracking individual fish caught in the Pacific Ocean)
- Genetics and magnetic receptors (in relation to homing and straying)

Neil Thompson (OSU, Zoology)

- Sperm motility (Hatchery: Wild)
- Sex ratios in steelhead samples (genetic vs phenotypic sex)

Salmon Homing and Straying

Ken Lohmann, Michael Banks, Andy
Dittman, Tom Quinn, David Noakes

[http://jeb.biologists.org/cgi/content/
full/211/11/1719](http://jeb.biologists.org/cgi/content/full/211/11/1719)

Research Workshop – OHRC –
January 210

Research Projects

- Smith – Root – alternative anesthesia (Fish Genetics & Performance Laboratory)
- Lotek – archival sonic tags
- Kintama – Chinook smolts